

Amendments to the Specification:

Please amend the title as follows:

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METHODS AND APPARATUS FOR PROVIDING ~~MANIFOLD ARRAY~~
(~~MANARRAY~~) PROGRAM-CONTEXT SWITCHING BETWEEN SOFTWARE TASKS
~~WITH ARRAY RECONFIGURABLE CONTROL~~

Please replace the paragraph beginning at page 8, line 5, with the following rewritten paragraph:

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In this exemplary system 100, common elements are used throughout to simplify the explanation, though actual implementations are not so limited. For example, the execution units 131 in the combined SP/PE0 101 can be separated into a set of execution units optimized for the control function, e.g. fixed point execution units, and the PE0 as well as any other PE that could be attached can be optimized for a floating point application. For the purposes of this description, it is assumed that the execution units 131 are of the same type in the SP/PE0 and in the additional PE or PEs, such as PE1 of Fig. 4 or PEs 1, 2 or 3 of Figs. 5A and 5B. In a similar manner, SP/PE0 and the other PEs ~~PE/PEs~~ use a five instruction slot iVLIW architecture which contains a very long instruction word memory (VIM) memory 109 and an instruction decode and VIM controller function unit 107 which receives instructions as dispatched from the SP/PE0's I- Fetch unit 103 and generates the VIM addresses-and-control signals 108 required to access the iVLIWs stored in the VIM. These iVLIWs are identified by the letters SLAMD in VIM 109. The loading of the iVLIWs is described in further detail in U.S. Patent Application Serial No.

Appl. No. 09/598,558
Amdt. dated January 12, 2004
Reply to Office Action of November 3, 2003

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09/187,539 entitled "Methods and Apparatus for Efficient Synchronous MIMD Operations with iVLIW PE-to-PE Communication". Also contained in the SP/PE0 is an SP reconfigurable register file 111 and a PE reconfigurable register file 127 which is described in further detail in U.S. Patent Application Serial No. 09/169,255 entitled "Methods and Apparatus for Dynamic Instruction Controlled Reconfiguration Register File with Extended Precision".
